# RESTRAINTS

### OUTLINE ..... 08-00 ON-BOARD DIAGNOSTIC.... 08-02

## 08–00 OUTLINE

RESTRAINTS ABBREVIATIONS ..... 08-00-1

### **RESTRAINTS ABBREVIATIONS**

ALR	Automatic Locking Retractor
DLC	Data Link Connector
DTC	Diagnostic Trouble Code
ELR	Emergency Locking Retractor
GND	Ground
IG	Ignition
LED	Light Emitting Diode
PAD	Passenger Air Bag Deactivation
PID	Parameter Identification
SAS	Sophisticated Air Bag Sensor
SST	Special Service Tool
WDS	Worldwide Diagnostic System

### **RESTRAINTS FEATURES**

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Improved safety	<ul> <li>A driver-side air bag module has been adopted.</li> <li>A passenger-side air bag module has been adopted.</li> <li>A curtain air bag module has been adopted.</li> <li>A side air bag module has been adopted.</li> <li>A pre-tensioner seat belt has been adopted.</li> <li>Three-point seat belt with the following functions for front seat passengers adopted         <ul> <li>ELR (Emergency Locking Retractor: emergency locking mechanism)</li> <li>Pre-tensioner seat belt (See 08–10–10 PRE-TENSIONER SEAT BELT CONSTRUCTION/ OPERATION.)</li> <li>Load limiter, which adjusts restraint force of the seat belt to reduce the possibility of injury to passengers caused by excess seat belt pressure after pre-tensioner operation</li> </ul> </li> <li>Three-point seat belt with the following functions for second-row seat passengers adopted</li></ul>

AIR BAG SYSTEM .....08-10

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**ON-BOARD DIAGNOSTIC FUNCTION** 

OUTLINE ...... 08–02–1

### **ON-BOARD DIAGNOSTIC FUNCTION OUTLINE**

- The air bag system has an on-board diagnostic function to facilitate the system diagnosis.
- The on-board diagnostic function consists of the following functions: a malfunction detection function, which detects overall malfunctions in the air bag system-related parts; a memory function, which stores detected DTCs; a display function, which indicates system malfunctions by DTC display; a PID/data monitoring function, which reads out specific input/output signals.
- Using the WDS or equivalent, DTCs can be read out and deleted, and the PID/data monitoring function can be activated.
- The system has a fail-safe function to prevent the accidental activation of the air bags in case of an air bag system malfunction.

### **ON-BOARD DIAGNOSTIC FUNCTION**

#### Self-Malfunction Diagnostic Function Malfunction detection function

• Detects overall malfunctions in the air bag system-related parts.

### Fail-safe function

• If the SAS control module performance/function cannot be maintained due to any cause, the fail-safe function stops air bag system control and flashes the air bag system warning light to prevent the air bags from operating (deploving) accidentally.

### **Memory function**

• Stores malfunctions in the air bag system-related parts detected by the malfunction detection function, and the stored malfunction contents are not cleared even if the ignition switch is turned to the LOCK position or the negative battery cable is disconnection.

### **Display function**

• When the malfunction detection function detects a malfunction, the air bag system warning light illuminates to advise the driver. Using the external tester communication function, DTCs can be output to the DLC-2 via the K-Line.

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DTC table				1
	DTC			4
WDS display		Air bag system warning light Flashing pattern	Priority ranking	System malfunction location
B1046	24		10	Driver-side curtain air bag module assembly incorrect
B1047	22		8	Driver-side side air bag module assembly incorrect
B104B	63		16	Driver-side side air bag sensor No. 1 assembly incorrect
B104C	64		17	Passenger-side side air bag sensor No. 1 assembly incorrect
B104D	42		14	Crash zone sensor assembly incorrect
B104F	64		17	Passenger-side air bag sensor No. 1 system internal circuit disabled
B1051	63		16	Driver-side side air bag sensor No. 1 system internal circuit disabled
B1055	23		9	Passenger-side side air bag module assembly incorrect
B1056	25		11	Passenger-side curtain air bag module assembly incorrect
B1058 B2228 B2230 B2232 B2234	19		6	Driver-side air bag module assembly incorrect
B1059 B2229 B2231 B2233 B2235	21		7	Passenger-side air bag module assembly incorrect
B1144 B1145	46		18	Driver-side side air bag sensor No. 2 system internal circuit disabled Driver-side side air bag sensor No. 2 system communication error
B1146	47		19	Passenger-side side air bag sensor No. 2 system internal circuit disabled
B1147 B1318				Communication error SAS control module power supply voltage
B1342	12		4	SAS control module

DTC Air bag system warning light				
WDS display		Flashing pattern Priority		System malfunction location
	—	Continuously illuminated		Air bag system warning light circuit open
B1869	—	Does not illuminate	—	Air bag system warning light circuit short to body ground
B1871	56		24	Passenger air bag deactivation (PAD) switch system circuit disabled
B1877				Driver-side pre-tensioner seat belt circuit resistance high
B1878	33		12	Driver-side pre-tensioner seat belt circuit short to power supply
B1879				Driver-side pre-tensioner seat belt circuit short to body ground
B1881				Passenger-side pre-tensioner seat belt circuit resistance high
B1882	34		13	Passenger-side pre-tensioner seat belt circuit short to power supply
B1883				Passenger-side pre-tensioner seat belt circuit short to body ground
B1884	18		26	Passenger air bag deactivation (PAD) indicator circuit open or short to body ground
B1885	33		12	Driver-side pre-tensioner seat belt circuit resistance low
B1886	34		13	Passenger-side pre-tensioner seat belt circuit resistance low
B1916	19		6	Driver-side air bag module circuit short to power supply
B1925	21		7	Passenger-side air bag module circuit short to power supply
B1932	19		6	Driver-side air bag module circuit resistance high
B1933	21		7	Passenger-side air bag module circuit resistance high
B1934	19		6	Driver-side air bag module circuit resistance low
B1935	21		7	Passenger-side air bag module circuit resistance low
B1936	19		6	Driver-side air bag module circuit short to body ground
B1938	21		7	Passenger-side air bag module circuit short to body ground

DTC				
WDS display		Flashing pattern	Priority ranking	System malfunction location
B1992			<b>J</b>	Driver-side side air bag module circuit short to power supply
B1993				Driver-side side air bag module circuit short to body ground
B1994	22		8	Driver-side side air bag module circuit resistance high
B1995				Driver-side side air bag module circuit resistance low
B1996				Passenger-side side air bag module circuit short to power supply
B1997	00	пп ппп г		Passenger-side side air bag module circuit short to body ground
B1998	23		9	Passenger-side side air bag module circuit resistance high
B1999				Passenger-side side air bag module circuit resistance low
B2226	42	<u> ПППП ПП Г</u>	14	Crash zone sensor system internal circuit disabled
B2227				Crash zone sensor system communication error
B2477	54		2	Configuration error
B2773				Driver-side curtain air bag module circuit resistance low
B2774	0.1	пп пппп г	10	Driver-side curtain air bag module circuit resistance high
B2775	24		10	Driver-side curtain air bag module circuit short to body ground
B2776				Driver-side curtain air bag module circuit short to power supply
B2777				Passenger-side curtain air bag module circuit resistance low
B2778	25	пп ппппп г	11	Passenger-side curtain air bag module circuit resistance high
B2779	20			Passenger-side curtain air bag module circuit short to body ground
B2780				Passenger-side curtain air bag module circuit short to power supply
B2856	42		14	Crash zone sensor system communication data error
B2867	31		3	Poor connection of any SAS control module connectors
B2886	64		17	Passenger-side air bag sensor system communication data error
B2887	63		16	Driver-side air bag sensor system communication data error
U2017	63		16	Driver-side side air bag sensor system communication error

DTC Air bag system warning light			System malfunction location	
display	Flashing pattern		Priority ranking	System manufiction location
U2018	64		17	Passenger-side side air bag sensor system communication error

#### **PID/Data Monitoring Function**

- By using the PID/data monitoring function, the monitored item of the input/output signal, as set on the SAS control module, can be freely selected and read out in real-time.
  The WDS or equivalent is used to read out PID/data monitor information.

#### PID/data monitor table

PID name (definition)	Unit/Condition	Operation Condition (Reference)	Terminal
CCNT_RCM (Number of continuous DTCs)	_	<ul><li>DTCs detected: 1—255</li><li>No DTCs detected: 0</li></ul>	
CR2D_Comm (Driver-side side air bag sensor No. 2 system communication data error)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor communication malfunction: FAULT</li></ul>	21, 2L
CR2D_Inter (Driver-side side air bag sensor No. 2 system internal circuit disabled)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor internal malfunction: FAULT</li></ul>	21, 2L
CR2D_Mount (Driver-side side air bag sensor No. 2 assembly incorrect)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor Install malfunction: FAULT</li></ul>	21, 2L
CR2D_Short (Driver-side side air bag sensor No. 2 system communication error)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor open or short circuit: FAULT</li></ul>	21, 2L
CR2P_Comm (Passenger-side side air bag sensor No. 2 system communication data error)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor communication malfunction: FAULT</li></ul>	2U, 2R
CR2P_Inter (Passenger-side side air bag sensor No. 2 system internal circuit disabled)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor internal malfunction: FAULT</li></ul>	2U, 2R
CR2P_Mount (Passenger-side side air bag sensor No. 2 assembly incorrect)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor Install malfunction: FAULT</li></ul>	2U, 2R
CR2P_Short (Passenger-side side air bag sensor No. 2 system communication error)	OK/ FAULT	<ul><li>Sensor normal: OK</li><li>Sensor open or short circuit: FAULT</li></ul>	2U, 2R
IGN_V_2 (IG1 voltage)	V	<ul> <li>Ignition switch is at ON: B+</li> <li>Other: 0</li> </ul>	
I_PAD_SW (PAD switch status)	On/ Off	<ul> <li>PAD switch is at PASS AIRBAG ON position: On</li> <li>PAD switch is at PASS AIRBAG OFF position: Off</li> </ul>	
RES_AB_D (Driver-side air bag module resistance)	ohm	Under any condition: 1.5—4.7 ohms	1A, 1D
RES_AB_P (Passenger-side air bag module resistance)	ohm	Under any condition: 1.3—4.7 ohms	1V, 1S
RES_CAB_D (Driver-side curtain air bag module resistance)	ohm	Under any condition: 1.3—4.7 ohms	2B, 2E
RES_CAB_P (Passenger-side curtain air bag module resistance)	ohm	Under any condition: 1.3—4.7 ohms	2Z, 2W
RES_PT_D (Driver-side pre-tensioner seat belt resistance)	ohm	Under any condition: 1.3—4.7 ohms	2A, 2D
RES_PT_P (Passenger-side pre-tensioner seat belt resistance)	ohm	Under any condition: 1.3—4.7 ohms	2Y, 2V
RES_SAB_D (Driver-side side air bag module resistance)	ohm	Under any condition: 1.3—4.7 ohms	2J, 2G
RES_SAB_P (Passenger-side side air bag module resistance)	ohm	Under any condition: 1.3—4.7 ohms	2P, 2S

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#### **AIR BAG SYSTEM OUTLINE**

- The air bag system is a device that supplements the passenger restraint function of the seat belts. The air bag system will not have the designed effect if the cost belts are not ward and a first in the seat belts. system will not have the designed effect if the seat belts are not worn properly.The air bag system is composed of the following parts:

Item	Outline		
SAS control module	<ul> <li>Recognizes actually equipped air bag module or pre- tensioner seat belt based on module configuration.</li> </ul>		
Crash zone sensor	• Detects degree of impact, converts to an electrical signal, and		
Side air bag sensor	sends the signal to the SAS control module. For operation, refer to SAS control module, Air Bag Module and Pre- tensioner Seat Belt Deployment Operation. (See 08–10–4 SAS CONTROL MODULE CONSTRUCTION/OPERATION)		
Driver-side air bag module	Adapted to improve patety in frontal colligions		
Passenger-side air bag module	Adopted to improve salety in frontal collisions.		
Side air bag module	Chest-protection type side air bag module is used in accordance with the adoption of the curtain air bag module.		
Curtain air bag module	Adopted to improve safety in lateral collisions.		
Pre-tensioner seat belt	Piston-type pre-tensioner seat belt has been adopted.		
PAD switch	<ul> <li>PAD switch has been adopted enabling optional deactivation of passenger-side air bag module, passenger-side side air bag module, and passenger-side pre-tensioner seat belt.</li> </ul>		
PAD indicator	• PAD indicator has been adopted to inform driver and front passenger of the deployment standby status of the passenger-side air bag module, passenger-side side air bag module, and passenger-side pre-tensioner seat belt.		
Air bag system warning light	LED has been adopted.		

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#### AIR BAG SYSTEM STRUCTURAL VIEW



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1	Air bag system warning light
2	Driver-side air bag module
3	Clock spring
4	PAD switch
5	Passenger-side air bag module
6	SAS control module
7	PAD indicator

8	Side air bag module
9	Curtain air bag module
10	Crash zone sensor
11	Side air bag sensor No. 1
12	Side air bag sensor No. 2
13	Pre-tensioner seat belt

#### AIR BAG SYSTEM WIRING DIAGRAM



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1	SAS control module
2	Instrument cluster
3	Air bag system warning light
4	DLC-2
5	PAD indicator
6	PAD switch
7	PASS AIRBAG ON
8	PASS AIRBAG OFF
9	Crash zone sensor
10	Twisted pair
11	Driver-side side air bag sensor No. 1
12	Passenger-side side air bag sensor No. 1

13	Driver-side side air bag sensor No. 2	~~
14	Passenger-side side air bag sensor No. 2	08
15	Poor connection detector bar	
16	Clock spring	
17	Driver-side air bag module	
18	Passenger-side air bag module	
19	Driver-side pre-tensioner seat belt	
20	Driver-side curtain air bag module	
21	Driver-side side air bag module	
22	Passenger-side pre-tensioner seat belt	
23	Passenger-side curtain air bag module	
24	Passenger-side side air bag module	

#### SAS CONTROL MODULE FUNCTION

#### Outline

Based on the module configuration, operation (deployment) matching the actual type of air bag module or
pretensioner seat belt setting variation can be controlled. If the module configuration is incomplete or incorrect,
the on-board diagnosis function displays a DTC. (See 08–02–1 ON-BOARD DIAGNOSTIC FUNCTION.) If the
SAS control module is replaced, it is necessary to perform the module configuration to match the specifications
of the vehicle in which it is being installed. Refer to the Workshop Manual for the procedure.

#### SAS CONTROL MODULE CONSTRUCTION/OPERATION

#### Front Air Bag System

- 1. During a frontal or frontal offset collision, the crash sensors in the crash zone sensor and the SAS control module detect the impact.
- 2. The degree of impact detected by the crash sensor in the crash zone sensor is converted to an electrical signal and sent to the SAS control module through the signal amplification circuit.
- 3. Simultaneously, the SAS control module crash sensor converts the degree of impact detected to an electrical signal.
- 4. The SAS control module processes the calculations for the two electrical signals at the output control circuit and compares the value to a preset value.
- 5. The SAS control module completes an ignition circuit for the pre-tensioner seat belts that is synchronized to the deployment of the driver and passenger-side air bag modules, and an operation signal is sent to the pre-tensioner seat belts.



1	SAS control module
2	Crash zone sensor
3	Crash sensor
4	Signal amplification circuit

5	Output control circuit
6	Front air bag module (driver or passenger-side air bag module)
7	Pre-tensioner seat belt

#### Side Air Bag System

- 1. During a lateral collision to the vehicle, the crash sensors in the side air bag sensor No. 1, side air bag sensor No. 2 and SAS control module detect the collision.
- 2. The degree of impact detected by the crash sensor in the side air bag sensor is converted to an electrical signal and sent to the SAS control module through the signal amplification circuit.
- 3. Simultaneously, the SAS control module crash sensor converts the degree of impact detected to an electrical signal.
- 4. The SAS control module processes the calculations for the three electrical signals at the output control circuit and compares the value to a preset value.
- 5. The output control circuit determines the degree of impact to the vehicle by the value from the crash sensors, completes a side air bag module and curtain air bag module ignition circuit, and sends the deployment signal to the air bag modules.

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1	SAS control module	
2	Side air bag sensor No. 1	ſ
3	Side air bag sensor No. 2	
4	Crash sensor	

5	Signal amplification circuit
6	Output control circuit
7	Side air bag module
8	Curtain air bag module

#### Side Air Bag Sensor System

1. To improve detection of an impact to the side of the vehicle, side air bag sensors have been placed in the front and rear (No.1: Front, No.2: Rear).



1 Side air bag sensor No. 1

2 Side air bag sensor No. 2

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#### Passenger Air Bag Deactivation (PAD) Switch Operation (Deployment) Control

- When the PAD switch is turned to the OFF position, the SAS control module inhibits operation (deployment) of the passenger-side air bag module, passenger-side side air bag module, and the passenger-side pre-tensioner seat belt even if the degree of impact from a collision is sufficient for normal air bag module operation (deployment). At the same time, the PAD indicator illuminates to alert the driver and passengers (passengerside seat) of the inoperational (undeployable) condition of the air bag.
- When the PAD switch turned to the ON position, the passenger-side air bag module, passenger-side side air bag module, and the passenger-side pre-tensioner seat belt operate (deploy) normally during a collision and the PAD indicator goes out.
- When the ignition switch is turned to the ON position, the PAD indicator illuminates for **approx. 6 s** while the SAS control module inspects for malfunctions in the circuit. If a malfunction is detected in the circuit, a DTC is displayed.

#### PASSENGER AIR BAG DEACTIVATION (PAD) SYSTEM FUNCTION

By operation of the PAD switch, vehicle occupants can optionally switch the passenger-side air bag module, passenger-side air bag module, and the passenger-side pre-tensioner seat belt between operational (deployable) and inoperational (undeployable) conditions.

#### PASSENGER AIR BAG DEACTIVATION (PAD) SYSTEM STRUCTURAL VIEW



2	PAD indicator

#### PASSENGER AIR BAG DEACTIVATION (PAD) SYSTEM CONSTRUCTION/OPERATION

- Consists of the PAD switch, installed on the left side of the dashboard, the PAD indicator, installed near the center of the dashboard, and the SAS control module.
- With the key inserted, when the PAD switch is turned to the OFF position, electric current A from the SAS control module passes through the PAD switch to ground, thereby forming an off circuit. At the same time, the PAD indicator illuminates and operation (deployment) of the passenger-side air bag module, passenger-side side air bag module, and the passenger-side pre-tensioner seat belt is inhibited.



1	PAD switch is at PASS AIRBAG ON position
2	PAD switch is at PASS AIRBAG OFF position
3	PAD indicator
4	PAD switch
5	PASS AIRBAG ON
6	PASS AIRBAG OFF

7	Electric current A
8	SAS control module
9	Passenger-side air bag module
10	Passenger-side side air bag module
11	Passenger-side pre-tensioner seat belt

### DRIVER-SIDE AIR BAG MODULE FUNCTION

### Outline

• During a frontal or front offset collision, an operation signal from the SAS control module is received and the front air bag operates (deploys), softening the impact to the head and face areas of the driver.

### DRIVER-SIDE AIR BAG MODULE CONSTRUCTION/OPERATION

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- Installed in the center of the steering wheel.
- The inflator operates in the following order:

### Inflator Operation

- 1. When an operation (deployment) signal is received from the SAS control module, the igniter built into the inflator generates heat and ignites the ignition agent.
- 2. The ignition of the ignition agent causes the combustion of a gas generating agent which forms nitrogen gas.

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3. The nitrogen gas is cooled at the filter and the filtrate is injected into the air bag.



PASSENGER-SIDE AIR BAG MODULE FUNCTION

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Outline
 During a frontal or front offset collision, an operation signal from the SAS control module is received and the air bag operates (deploys), softening the impact to the head and face areas of the front passenger.

### PASSENGER-SIDE AIR BAG MODULE CONSTRUCTION/OPERATION

- Installed in the dashboard.
- The inflator operation is the same as the driver's side air bag. (See 08–10–7 DRIVER-SIDE AIR BAG MODULE CONSTRUCTION/OPERATION.)

### SIDE AIR BAG MODULE FUNCTION

- During a collision to the side of the vehicle, the air bag operates (deploys) after receiving an operation signal from the SAS control module, defusing impact to the chest area of the driver and front passenger.
- Operates in conjunction with the curtain air bag module.

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#### SIDE AIR BAG MODULE CONSTRUCTION/OPERATION

#### Construction

- Side air bag modules are installed on the outboard sides of the front seat backs.
- The side air bag module is composed of an inflator and air bag.
- When the air bag operates (deploys), the seat back trim is spread apart by argon gas generated from the inflator, inflating the air bag.



- The inflator operates in the following order:
  - 1. The igniter built into the inflator begins to build up heat when the operation (deployment) signal is sent from the SAS control module. The inflation agent is ignited by the build up of heat in the igniter.
  - 2. The argon gas expands due to the heat of the ignited inflation agent.
  - 3. The expanding argon gas breaks the discharge barrier, is cooled and filtered by the filter, and then injected into the air bag.



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1	Ignitor
2	inflation agent
3	Combustion of inflation agent
4	Argon gas

5	Argon gas expansion
6	Discharge barrier
7	To air bag

#### **CURTAIN AIR BAG MODULE FUNCTION**

- During a lateral collision to the vehicle, the air bag operates (deploys) after receiving an operation signal from the SAS control module, defusing impact to the side of the head of the driver and other passengers (passenger-side and rear outboard-seated passenger).
- Operates in conjunction with the side air bag module.

#### CURTAIN AIR BAG MODULE CONSTRUCTION/OPERATION

#### Construction

- The curtain air bag modules are equipped along the roof edge between the A and D pillars.
- The curtain air bag module is composed of the inflator and air bag.
- When the curtain air bag deploys, the pillar trim and headliner is spread apart by argon gas generated from the inflator, inflating the air bag.

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2 Inflator	

- A stored-type inflator has been adopted instead of using an ignition agent in the inflator.
- The inflator operates in the following order:
  - 1. When an operation (deployment) signal is received from the SAS control module, the igniter ignites.
  - 2. The ignition causes the discharge area of the wall to open and compressed gas is released.
  - 3. The compressed gas passes through the filter and the filtrate is injected into the air bag.



1	Ignitor
2	Compressed gas
3	Combustion of inflation agent

4	Compressed gas	
5	Filter	30
6	To air bag	

#### PRE-TENSIONER SEAT BELT FUNCTION

• When a vehicle is involved in a frontal or frontal offset collision and the front seat belts are buckled, the pretensioner seat belt system receives an operation signal from the SAS control module, retracting and tightening the belt webbing instantly on the driver and front passenger restraints.

### PRE-TENSIONER SEAT BELT CONSTRUCTION/OPERATION



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1	Cap nut
2	Gas generator
3	Cylinder
4	Spindle
5	Base
6	Piston
7	Clutch roller

8	Gear
9	Cover
10	Spring seat
11	Spring shaft
12	Spring
13	Spring case

#### Operation

#### Normal (Seat Belt Pretensioners Not Operating)

- Normally, the clutch roller installed to the outer circumference of the spindle sits in the recess of the gear and does not interfere with the spindle.
- The gear does not rotate when the belt is pulled or retracted because the spindle and gear are not engaged.



1	Gear
2	Spindle

3 Clutch roller

#### Seat Belt Pretensioners Operating

- 1. When an operation signal is received from the SAS control module, the gas generator produces gas. Due to the pressure from the gas, the piston in the cylinder is pressed up.
- 2. The gear rotates while the piston moves up.
- 3. Based on the gear rotation, the clutch roller in the gear presses against the spindle.Due to this, the gear and spindle are engaged.
- 4. The belt is retracted in conjunction with the gear rotation.



1	Gear	4	Clutch roller
2	Gas generator	5	Spindle
3	Piston		

### 08–11 SEAT BELT

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#### SEAT BELT OUTLINE

DPE081157000T01

Features	
Improved safety	<ul> <li>Three-point seat belt with the following functions for front seat passengers adopted         <ul> <li>ELR (Emergency Locking Retractor: emergency locking mechanism)</li> <li>Pre-tensioner seat belt (See 08–10–10 PRE-TENSIONER SEAT BELT CONSTRUCTION/OPERATION.)</li> <li>Load limiter, which adjusts restraint force of the seat belt to reduce the possibility of injury to passengers caused by excess seat belt pressure after pre-tensioner operation</li> <li>Three-point seat belt with the following functions for second-row seat passengers adopted — ELR</li> <li>Three-point seat belt with the following functions for third-row seat passengers adopted — ELR</li> </ul> </li> </ul>

### SEAT BELT STRUCTURAL VIEW



1	Front seat belt
2	Front buckle
3	Second-row seat belt
4	Second-row center seat belt (Type A)
5	Second-row center seat belt (Type B)

6	Second-row buckle
7	Second-row center buckle
8	Third-row seat belt
9	Third-row buckle

#### LOAD LIMITER RETRACTOR CONSTRUCTION/OPERATION

- 1. Initial state
- 2. ELR operation



When the force of impact is transferred to the belt, the retractor changes to the ELR condition, locking the belt and securing the passenger's body.



1	The vehicle is involved in an impact
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- 3. Load limiter operation
  - After locking, if the force of impact transferred to the belt is strong enough to cause injury to the chest of the occupant, an adequate amount of belt is released to absorb the load applied to the chest.



#### CHILD RESTRAINT SEAT ANCHOR CONSTRUCTION

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 ISOFIX anchors for securing an ISOFIX child-restraint seat are set on the left and right sides of the second-row seats.

#### Caution

• The installation procedure varies with the type of child-restraint seat. When installing a child-restraint seat, be sure to follow the prescribed procedure for each type.



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### SEAT BELT

1	Top tezar belt
2	ISOFIX anchor
3	Second-row seat